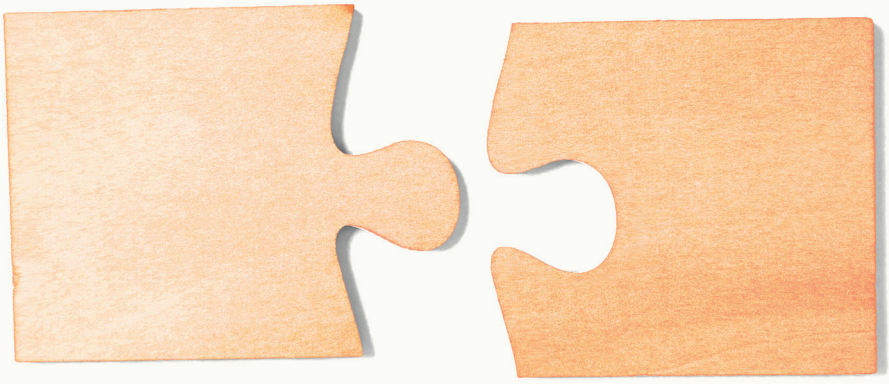
Why We Click

The Hidden Dynamics of Connection

KATE MURPHY



'A fascinating, science-backed reminder that the joy we seek so often begins in rhythm with the people around us'

LAURIE SANTOS, Professor of Psychology at Yale University

The New Science of Interpersonal Synchrony

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For those who take others to heart

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Introduction

Have you ever met someone with whom you felt an instant connection or who, conversely, immediately gave you the creeps? Are there people in your life who always seem to lift your spirits, while others just as reliably drag you down? Do you ever cringe at another person's humiliation or swell with pride at someone else's success? While singing at church, chanting at a rally, cheering at a ball game, or dancing at a club, have you ever felt a kind of joyful transcendence or oneness with those around you?

If you answered yes to any of these questions, you have experienced interpersonal synchrony, perhaps the most consequential social dynamic most people have never heard of. Interpersonal synchrony is the seemingly magical, yet scientifically documented, tendency of human beings to fall into rhythm with one another. Not only do we subconsciously match one another's movements, postures, facial expressions, and gestures, recent breakthroughs in technology have revealed we also sync up our heart rates, blood pressure, brain waves, pupil dilation, and hormonal activity. The result is that emotions, moods, attitudes, and

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subsequent behaviors can be as infectious as any disease and can have just as profound an influence on our health and well-being.

As exquisitely social creatures, humans have evolved to synchronize with, or *embody*, one another because embodiment leads to understanding and empathy, which is the ultimate survival skill. We are wired to perform a kind of deep-seated method acting in social situations. By subconsciously mimicking even the subtlest twitches of expression and biological rhythms of other people, we can channel their thoughts and feelings. When we reflexively smile upon observing someone else's joy, we feel their happiness. Syncing with their racing heart makes us feel their anxiety. Moreover, the synchronization of brain waves during conversations or during shared experiences and activities aligns beliefs and attitudes. You and the other person are, at that moment, of like minds.

Synchronized phenomena occur throughout the natural and life sciences, but research has only recently revealed the extent to which human beings synchronize and its significance. Synchrony between humans is nothing short of a superpower. Compared to other species, we are not imposing in size or strength. We are not terribly fast or nimble. Our senses are pretty feeble, and our brains, while capable of astounding feats of cognition and imagination, are nevertheless limited and subject to all kinds of processing errors. But thanks to interpersonal synchrony, we can marshal and coordinate our bodies and brains to communicate, innovate, create, build, sustain, and succeed in ways far exceeding what we could accomplish alone.

We are all tuning forks roaming the planet, picking up vibes and finding resonance with those we encounter. It's a truth known on some level since antiquity. Plato wrote that we are all

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born seeking to reunite with our missing other half, but what we are really seeking are those whose internal rhythms harmonize with our own—the people with whom we effortlessly click. And certainly, turns of phrase like being *in sync*, *in tune*, *in step*, and *on the same wavelength* have been part of our vernacular well before recent advances in technology revealed it was actually true.

Our bodies and brains are intricate assemblies of oscillating cells, so it shouldn't be surprising that when two or more humans gather, like pendulum clocks in close proximity, they will begin to swing in unison, ticking and tocking together. It's a natural wonder that is far from fully understood. Some researchers suspect it may be an amplification or elaboration of so-called quantum entanglement—a phenomenon Albert Einstein famously called "spooky action at a distance"—where interacting subatomic particles begin to behave as one, even when separated in time and space.

While we like to think we are not unduly influenced by others, the fact is that interpersonal synchrony shapes what we do, how we feel, who we love, and, indeed, who we are. It determines the duration and quality of human relationships and, at scale, drives things like political ideology, morality, patriotism, business culture, and market sentiment. It is responsible for the best and worst aspects of humanity—from functioning governments, coordinated market economies, cohesive cultures, and scientific advancement to wars, riots, persecutions, and mass hysteria.

Throughout history, and also likely within your own social network, some people are more likely to set the tone or tempo, while others are more likely to tune in and keep time. Or, using the contagion metaphor, some people are more infectious, while others are more vulnerable to infection. But we are all susceptible.

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In fact, artificial intelligence and social media companies are currently hiring neuroscientists away from academia at a blistering rate, hoping to find ways to get us to synchronize with bots and apps and thereby influence our feelings and behaviors.

It can be difficult to accept that our emotions and actions may not be entirely our own, much less swayed by unseen energy transmitted by others, even total strangers. Early researchers investigating interpersonal synchrony—before it could be objectively measured—were scoffed at and sidelined by the scientific community because it smacked of the occult. Their work suggested a kind of telepathy and lent credence to Carl Jung's notion of synchronicity, or meaningful coincidences.

The problem we face, as individuals and as a society, is not that we are subject to interpersonal synchrony but that we underestimate the power it exerts on us. Most recognize that fashion may influence the clothes we wear, the slang we use, the cars we drive, and the technology we adopt. But we are less willing to believe that things thought to be more consequential, personal, or uniquely determined—such as academic achievement, loneliness, depression, alcoholism, divorce, violent crime, altruism, body size, voting behavior, and sexual activity—could similarly go viral.

This is not to say humans are indistinct from schools of fish or murmurations of starlings. To the contrary, individuals potentially have as much power to influence as be influenced. So while this book is an exploration of the evolutionary origin, neurobiology, and outsize impact of interpersonal synchrony, it is also a practical guide to the kinds of personalities and contexts that make it more likely to occur. While interpersonal synchrony is largely a subconscious process, you can get better at detecting

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and encouraging it when it's beneficial and desynchronizing, or breaking the beat when it is not.

Our interactions with people are what make us most happy and most miserable in life, which is why understanding interpersonal synchrony is so important. It is the neurobiological mechanism by which we form impressions and feelings for one another, which in turn shapes the impressions and feelings we have about ourselves. Again, interpersonal synchrony is our superpower. But it can also be our kryptonite, especially when it causes us to lose sight of where we stop and others begin. Who hasn't asked themselves, "Why did I do that?" or "What was I thinking?" You were likely syncing at that moment with someone else.

Interpersonal synchrony, above all, reminds us that we are not unto ourselves in this world. We internalize one another, even those we may not know well or at all. We can literally warm people's hearts and get on their nerves. And we carry others' vibes and rhythms around with us like catchy tunes that, once heard, continue to play in our heads. The instinct to sync, then, confers a responsibility to try to be what you want replicated. Your thoughts, feelings, demeanor, and behavior do not begin, nor do they end, with you.

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1

That Syncing Feeling

A TALE OF TWO NEIGHBORS

Joan moved from Florida to my Houston neighborhood after her husband died a few years ago. Her son and daughter-in-law live a couple of blocks from me and had arranged for Joan to rent a house across the street from them, reasoning a newly widowed octogenarian should be closer to family. Having never lived alone in her life, Joan reluctantly agreed.

Something of a serial entrepreneur before relocating (she ran a children's day care and laundromat, among other things), Joan soon grew bored puttering around her little white cottage and tending her roses. So she signed up to be a crossing guard for a nearby elementary school. She wanted "a reason to be," she told me.

Now, every school day, rain or shine, silver pixie cut blowing in the wind, Joan energetically works her intersection. Back and forth in her reflective orange-and-yellow vest, Joan hoists

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her stop sign in one hand while using the other to wave or give a thumbs-up to anyone who makes eye contact. Sulky children beneath burdensome backpacks brighten when they see her. Dog walkers, who otherwise ignore the world in favor of their phones, stop and gaily chat with her. Random drivers of cars crawling through the school zone roll down their windows to hand her doughnuts, danishes, and the occasional kale-and-pineapple smoothie.

To say Joan is magnetic doesn't quite cover it. She attracts, but also visibly transforms, those who enter her orbit. Tired and stony faces become more alert and animated. Gaits that were heavy become lighter, even jaunty. In effect, people become iterations of sprightly, smiling Joan. Moreover, after leaving her intersection (we call it "Joan's Corner"), people tend to smile and cheerfully greet the next person they meet as if infected with her bonhomie.

When Joan broke her wrist and didn't show up at her corner one morning, a pall fell over the neighborhood. Texts flew. "Where is Joan?" Her absence felt a bit like withdrawal—like how you'd feel if you walked into Starbucks and they'd run out of coffee. When Joan reappeared, directing traffic in a sling, there was a collective sigh of relief. One neighbor actually cried.

Now meet Jen, another neighbor and a tenured professor at a nearby university. On her daily walks to and from campus—her determined steps logged on her Fitbit—she probably encounters just as many people as Joan merrily working her intersection. But whereas people react to Joan as if warmed by an unexpected ray of sunshine, they leave interactions with Jen as if under a cloud.

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It would be easy to say it's because Jen tends to dwell on what

she considers outrages and indiscretions—both in the neighborhood and the wider world. But there is something about Jen's intensity and inflexibility, in posture and opinion, that makes people vaguely uncomfortable even when she's only talking about the weather. Neighbors assume a more closed, or stiff, stance around her, maybe crossing their arms or plunging their hands deep into their pockets. They knit their brows and shift their weight from one foot to the other. As attractive and accomplished as Jen is—and she is both of those things—she leaves people looking, and also feeling, a bit tense and sort of tired.

When Jen took a sabbatical in Italy for six months, Jen's next-door neighbor confided that she was enjoying the break. Behind her hand, she whispered that sometimes she hid in her house or ducked behind bushes to avoid running into Jen. Not that this neighbor could articulate exactly why she did that. Jen had never been insulting or overtly rude to her. All the neighbor could say was that interacting with Jen "felt like too much work."

Do you know a Joan or a Jen? Are you perhaps a Joan or a Jen? We all emit a kind of vibe linked to a combination of factors, including heart rate, respiration, blood flow, hormonal activity, muscle tension, and the neural firing patterns, or oscillations, that are our thoughts. While your vibe may have some overall consistency, just as Joan's tends to be upbeat and Jen's tends to be more downbeat, it varies according to your mood and health, time of day, and, significantly, those with whom you interact. The degree to which your vibe synchronizes with someone else's can be striking or subtle, lasting or fleeting, but nevertheless, every social interaction provokes an alteration in the rhythm pulsing within each person involved.

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Interpersonal synchrony is such an instinctive and dynamic

process, few realize it's happening as it's happening. Typically, it isn't until later that we come up with reasons why we liked or didn't like someone, unaware that our assessments are based largely on synchronized neural and physiological activity (or lack thereof) produced during the encounter. Maya Angelou was right: "People will forget what you said, people will forget what you did, but people will never forget how you made them feel."

The instinct to sync makes sense if you think about how we came to be, synchronizing in utero with the physical and emotional rhythms of our mothers. Our inner metronomes, including our biological clocks and our hearts' natural pacemakers, consolidate during the third trimester and align with maternal patterns. Newborns continue to rely on their mothers', or primary caregivers', bodily rhythms to adjust to postnatal life. It's why skin-to-skin contact, or so-called kangaroo care, is recommended for both premature and full-term babies to help stabilize their heart and respiratory rates, improve oxygen saturation, regulate body temperature, boost immune function, and help them sleep.

There is a well-documented tendency of mothers, regardless of whether they are right- or left-handed, to cradle their infants in their left arms and against the left side of their bodies. The left side, of course, is where the heart is. Look at Madonna paintings and sculptures dating back several centuries and you'll notice Mary most often holds baby Jesus on the left side. Surveys of photographs posted online of moms holding their newborns show the same pose. Moreover, fathers and even people without children tend to hold babies on the left side.

In addition to cardiac pacing, the left-side cradling bias is also thought to promote brain-to-brain synchrony because what we

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see from the left of our visual field is transmitted to the right hemisphere of the brain, which is where emotional decoding takes place. Therefore, the caregiver's neural patterns might more quickly and easily sync with those of the infant and thus more effectively interpret the baby's wants and needs. Perhaps this is also why most people tend to tilt their heads to the right when kissing romantically, thereby putting their beloved on the left side.

Much of our social ability and acuity can be traced back to synchronization with a caregiver. Coordination of gaze, repetitive rhythmic movements such as rocking or bouncing, mimicking facial expressions, and imitating vocalizations provoke an associated coupling of heart rhythms, hormonal activity, and brain waves, or neural patterns, that train, or tune, babies to be socially adept. This may explain the near-universal inclination of people to exaggerate their gestures and facial expressions and use elongated, singsongy speech, known as "motherese," when interacting with babies. It helps little ones catch on more easily and sync up. Romantic couples, too, have been known to engage in baby talk.

Interestingly, researchers have found that, cross-culturally, moms tend to put their babies into a more calming cadence while dads tend to amp up their kids with more jerky, highly aroused, syncopated rhythms. The happy combination is thought to help babies learn to sync at different tempos, adjusting their behavior and physiology to their interacting partner, which sets them up to navigate more complex multiperson exchanges later on.

Without this kind of consistent one-on-one engagement, infants are more likely to grow into children and later adults who have difficulty recognizing emotions in others and regulating

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their own emotions. They can struggle to sync up and find resonance or click with others. An early and heartbreaking indicator of the importance of social "tuning" during infancy was psychologist Harry Harlow's classic behavioral science studies in the 1950s and 1960s, where newborn rhesus monkeys were taken from their mothers and raised in isolation.

The baby monkeys, while physically healthy, showed disturbed behavior—staring blankly, circling their cages, and engaging in self-mutilation. When given the opportunity, they clung to cloth-and-foam imitation mothers and put their little ears to the dummy mothers' chests where their real mothers' beating hearts would be.

Lacking the opportunity to synchronize with the physiological, behavioral, and emotional rhythms of their mothers—or any other living thing—the isolated monkeys didn't know how to respond to overtures when later introduced to their peers. They were often terrified and liable to attack if approached. They crouched in corners, and some even died after refusing to eat.

Studies have shown that human infants who are neglected, or whose mothers are not fully engaged due to depression, extreme stress, or trauma, likewise grow up struggling to develop and maintain relationships and have measurably lower activity in regions of the brain responsible for sociability and human attachment. Their physiology and neural activity does not easily sync up with others', nor dynamically shift in response to the changing vibes of others. It's as if they are playing off-key or off beat in an orchestra, if not sometimes playing an entirely different melody from everyone else.

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"A child's social brain needs to be tuned properly and at the

right time," Israeli psychologist and neuroscientist Ruth Feldman told me. "Our brains do not develop in isolation."

Feldman's laboratory at Reichman University in Herzliya, a coastal city outside Tel Aviv, has followed children from birth to young adulthood to assess how behavioral, emotional, and neurobiological synchronization between mothers and their babies impacts their later social development. What she and her team found was that the degree of mother-infant synchrony shaped later empathic and general social abilities when measured during preschool, adolescence, and early adulthood.

Moreover, Feldman and her colleagues identified subcortical regions of the brain that she calls "the human attachment network," which were less active in infants and children who lacked tight biological and behavioral synchrony with their mothers. Feldman told me that this network of brain regions must be activated for "cross-generational transmission of attachment ability" to occur. In other words, synchrony with a caregiver is like the key that opens the lock to our ability to connect and to love. Thus, parents themselves must have first had their own attachment networks unlocked in their early lives to be able to pass the ability on to their children.

This is not to say your attachment network cannot be activated and finely tuned later in life through interpersonal synchrony with mentors, peers, and romantic partners. It's just harder, kind of like it's harder to learn a language when you're older no matter how good the teacher. Our brains are more receptive, our neural patterns less rigid, when we are young.

"The same attachment network that we saw activated in mothers when they see their children was also activated in fathers and gay men raising infants without maternal involvement," Feldman

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said. "It's the same network that is activated when you see your best friend or lover, or have a reminder of them, like in a video or picture."

Of course, saying any particular area of the brain is responsible for anything is like singling out an individual soccer player as responsible for scoring all the goals. That player might end up scoring all the goals in a particular game, but not every game, and not without significant contributions from teammates. In the same way, the attachment network Feldman identified is likely an essential part of a larger, more complicated, and more widely distributed mechanism that is responsible for our ability to synchronize and bond with other people.

This mechanism, the mechanism of attraction and affiliation, has been of intense interest to writers, poets, and philosophers for centuries but has only recently drawn the attention of scientists, particularly those who study the circuitry of the brain and nervous system. "When I used to go to neuroscience conferences like fifteen years ago and say, 'I study attachment, bonding, and love,' they would say, 'Are you crazy? You are not serious!'" Feldman said. Her colleagues told her she might as well study the brain basis of God and faith.

Social neuroscience has since emerged as a serious discipline, aided by the development of sophisticated technology that allows researchers like Feldman to measure and analyze synchrony in people's facial expressions, brain impulses, heart rates, respiration, skin conductance, and hormonal levels. Moreover, researchers are increasingly able to make these measurements in more naturalistic social settings. Subjects can now wear strategically placed sensors that allow for more freedom of movement than, say, lying in clunky and cave-like fMRI machines, which were

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previously used to gauge degree and location of brain activity. You can't exactly have subjects play with their children, go out on dates, or have arguments in an fMRI machine.

The granularity of the data now being generated is astounding, even a little overwhelming. The result is that neuroscientists and developmental psychologists are now teaming up with computer scientists, mathematicians, anthropologists, sociologists, behavioral economists, and physicists to make sense of it and try to form predictive models of social outcomes based on degree, type, and timing of synchronistic activity. The hope is to understand the Joan-Jen dichotomy—the hidden dynamics of human attraction and aversion. Why do we like who we like? Why are we drawn to some and unmoved, or turned off, by others?

What we know at this point is that synchrony underlies and determines our attachments to other people. It greases the wheels of social interaction and is a measurable indicator of affiliation and bonding. We are a species that has evolved to synchronize physiologically, emotionally, and behaviorally; and we find it immensely pleasurable when it occurs. We are born to sync. We yearn to sync. And we suffer when we do not.

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2

Love at First Sync

THE HIDDEN DYNAMICS OF ATTRACTION

If there were a Hollywood Walk of Fame for matchmaking, Yaacov Deyo would certainly have a star. The Los Angeles rabbi is credited with inventing speed dating in the late 1990s to help Jewish singles more efficiently find marriage partners. He came up with the idea while brainstorming with a group of Jewish entertainment executives, one of whom produced game shows, which may partly explain why Rabbi Deyo reportedly twirled a gragger, the traditional Purim noisemaker, to signal when couples' ten minutes of schmoozing were up and it was time to switch partners. It was a zany table-hopping take on musical chairs, only without removing any chairs.

But speed dating actually began more than a hundred years before Rabbi Deyo's gamified version was embraced by Jews and gentiles alike. In nineteenth-century high society, a nationwide

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speed-dating event occurred every year on January 1 and involved throngs of eligible gentlemen making round-robin social calls at the homes of marriageable young ladies.

The protocol for what was then known as "New Year's Day Calling" was for well-bred bachelors to arrive between the hours of 10:00 a.m. and 10:00 p.m., place their calling cards (engraved, never printed) on a silver tray held waist-high by a butler, and enter the drawing room to pay their respects to the young lady or young ladies in residence.

The gentleman caller was not invited to take off his coat, because he was not to stay more than five minutes, according to etiquette. This gave him just enough time to make small talk—suitable topics included the weather and how ravishing the young ladies looked—sip some punch, and, if he was quick about it, have a bite of cake or nibble an oyster before moving on to the next house.

"Called at 107 houses, leaving cards at 36 of them, and finding 71 at home. Started at Washington Square, thence to Bond St, up 2nd to 17th, to Union Square, down the east side to 10th St, up the West Side to 21st, then back and forth, east and west of Fifth Avenue until we reached 47th Street," John Ward recorded in his diary in 1866.

Mr. Ward might have spent more of his allotted five minutes per visit sampling the refreshments had he known what various studies have since established: It takes less than thirty seconds for both men and women to decide whether they are interested in another person, romantically or otherwise. Indeed, we are often as accurate after so-called thin-slice exposures than when given more time to deliberate, particularly when it comes to detecting

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deception, making moral judgments, and discerning sexual orientation. So what happens during that brief interlude when people largely make up their minds whether they want to be your friend or your lover or maybe your mentor, client, employee, or boss?

Numerous speed-dating and speed-networking experiments (using the rabbinical rather than the Victorian model) have been conducted since the early 2000s attempting to answer that question. The early findings were confounding. For example, subjects often picked partners outside what they had previously said were their parameters, or redlines, such as "must observe the same faith" or "must be located within thirty miles of my home" or "must have a good income."

How animated people were, how much they laughed, and what people said during the brief encounter were equally unreliable indicators—something painfully obvious to anyone who has been ghosted after a date or job interview that they thought had gone really well. And while physical attractiveness correlated with more initial interest, being hot didn't guarantee ultimate success, nor that the attractive person's interest in someone else would be reciprocated.

After almost twenty years of speed-dating studies conducted in laboratory settings as well as at music festivals, science fairs, bars, and coffee shops, researchers discovered something that was inconceivable when they began their investigations: The couples that hit it off were literally on the same wavelength. Their bodily movements and internal rhythms were coordinated, and the wavelike neural firing patterns in their brains coupled, or coincided.

Of course, researchers as far back as the 1960s have noted

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people's tendency to mirror one another's behaviors, such as touching their hair, crossing their legs, or scratching their faces at the same time. But it was less of a scientific discovery than a curiosity, similar to what E. M. Forster wrote about in his 1908 novel *A Room with a View*: "She stopped and leant her elbows against the parapet of the embankment. He did likewise. There is at times a magic in identity of position; it is one of the things that have suggested to us eternal comradeship."

It wasn't until the dawn of the twenty-first century that the scientific community began to overcome its incredulity that people would, or even could, synchronize not only observable behaviors, like leaning against a parapet, but also their neural and autonomic activity, such as brain waves, respiration, and heart rate. Much less that such interpersonal synchrony might predict, and even be the basis of, mutual affection and attachment.

To be fair, there previously hadn't been ways to precisely measure the phenomenon. Hence, credit for ushering in this new age of social neuroscience is due, at least in part, to the invention of laser motion sensors, eye-tracking "smart" eyeglasses, and a neuroimaging technique called *hyperscanning*, which allows for the simultaneous recording of the brain activity of multiple subjects.

These monitoring devices, along with sophisticated analytics software that makes sense of all the biometric data they provide, have revealed some of what happens in our bodies and our brains when we click with another person. For instance, pairs of speed daters had a greater sense of connection and affiliation when they mirrored one another's involuntary facial expressions. They matched not only one another's visible smiles, frowns, raised eyebrows, and furrowed foreheads but also

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microexpressions that are too subtle to see, such as faint twitches around the eyes and mouth, of which people are totally unaware and cannot fake.*

Couples who wanted to see each other again also tended to match each other's speech patterns. Not just number of words spoken and word choice but also tonality, pitch, and something called *style matching*, which has to do with sentence structure. Specifically, people who liked each other strangely started to use function words like *a* and *the*, as well as pronouns, in much the same way. Because function words are typically short, frequently used, and mean little outside the context of the sentence, linguists say they are generated and processed rapidly and largely subconsciously when people converse.

Another sign of attraction between speed daters was the matching of the depth and fixity of gaze, as well as the alignment of gestures and postural sway, which is the overall gestalt of your bodily movement. Even more telling was the degree to which people synced up their neural patterns (brain waves), heart rate, respiration, and skin conductance, which is a measure of how well the skin conducts electricity, and thus, how emotionally charged up a person is. Such metrics are obviously useful when, as is often the case, people's inner truths are at odds with their outward behaviors, like, say, when someone behaves nonchalantly or coolly around someone they are crazy about because

* Several studies indicate that cosmetic procedures such as Botox, injectable fillers, and facelifts inhibit microexpressions and hence diminish facial mimicry and people's ability to empathize and connect with others. At the same time, this lack of mimicry makes other people vaguely unsettled and uncomfortable without knowing why.

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they fear rejection, or smiles at someone they detest so as not to be rude.

While interpersonal synchrony—what some might call *chemistry*—can occur during the briefest of encounters, it still demands an encounter to be experienced in its deepest, truest sense. You need to be in each other's living, breathing presence, which perhaps explains the growing dissatisfaction with technology's Mach 2 answer to speed dating: dating apps. Despite their assortative efficiency—swipe right to accept, swipe left to reject—deletions of dating apps have been increasing and downloads decreasing precipitously since 2022 largely because many singles just aren't "feeling it" online. Or if they do feel as though they've developed a connection with someone virtually, they are often disappointed when they finally meet in person.

It's not only that people's online selves tend to be buffed and filtered versions of their actual selves; it's also that whether two people click or sync is as much physiological and neurobiological as it is emotional and intellectual. We've all known couples where we've thought: "I'd *never* have put those two together." They likely never imagined they'd be together either.

Someone can check all the boxes of what you or a dating app's algorithm thinks is a perfect match, and yet, when you meet that person face-to-face, all you can think about is what you'd rather be watching on Netflix. At the same time, you might have an instant attraction to someone you meet in person whose online dating profile would have caused you to immediately swipe left.

It's also a matter of timing. Other things going on in your life, such as other romantic interests, illness, job stress, or family issues, can color or cloud your perception or interfere with your reception of another person's neurophysiological signals. The lesson

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of interpersonal synchrony is that it is ideally and most exquisitely felt in the moment and in the flesh. It's hubris to think we can commodify or codify connection.

"What we're talking about is a much older, evolutionary, more animalistic way of understanding the social world, which is basically using information that doesn't need to be taken into consciousness, thought about, or inferred," said Eliska Prochazkova, a postdoctoral researcher at the Cognitive Psychology Unit of Leiden University in the Netherlands.

In multiple speed-dating studies, Prochazkova and her colleagues have found that mutual attraction is not so much a matter of arousal as the ability of two people to put each other in a similar physiological state, which the couple together interpret as pleasurable. The interpretation part is key, which we will get to later. But for now, suffice it to say that the more the impulses undulating throughout your brain and body synchronize with the impulses undulating throughout the brain and body of another person, the more potentially rewarding and pleasurable the encounter.

Other research has found that once a relationship is established, the more couples synchronize physiologically and behaviorally, the better they are able to identify each other's emotions, particularly recognizing when their partner is upset, and the higher they rate their romantic or sexual satisfaction. It's a dynamic process that in healthy relationships likely occurs homeostatically, whereby one partner, in effect, taps on the gas while the other taps on the brake, and vice versa, moment by moment, so that both arrive at a comfortable equilibrium.

The most obvious manifestation is during mutually satisfying sex, where both partners are tuned in and playing off each

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other physically, emotionally, and hormonally, each building to a climax, one's excitement stoking the other's, until there is release and they fall back together into a sense of calm and fulfillment.

Put another way, securely attached partners contingently stimulate or soothe each other so that they remain synchronized within an optimal arousal zone. What constitutes "optimal" is dependent on both the couple (their personalities, health status, mood, and stress levels) and demands of the situation (having sex, silently reading together, hiking a mountain trail, or watching the kids). Studies have shown the mere presence of a supportive partner slows the heart rate of an anxious partner and lessens the perception of physical pain, more so when the supportive partner holds the afflicted partner's hand.

This kind of co-regulation is at work when a couple is arguing and one of them draws back, or maybe tells a joke, which tamps down or defuses the other's agitation. It's also fundamentally why not only securely attached romantic partners but also best friends and close family members tend to seek out one another when they are in distress. Our confidants may ask us questions and provide needed perspective about our situation, but often just being with them, their very presence, makes us feel better. They return us to a comfortable baseline, not just emotionally but also physiologically, because the two are intertwined. Scientists call it *biobehavioral* or *psychobiological balancing*.

In dysfunctional relationships, the mutual regulatory system between couples breaks down and you can get what is known as *co-dysregulation*. When this happens, people's emotions and physiology are synchronized but in an escalating way so that the couple spins away from stability. This is the case when one person gets mad, which makes the other person get mad, which

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